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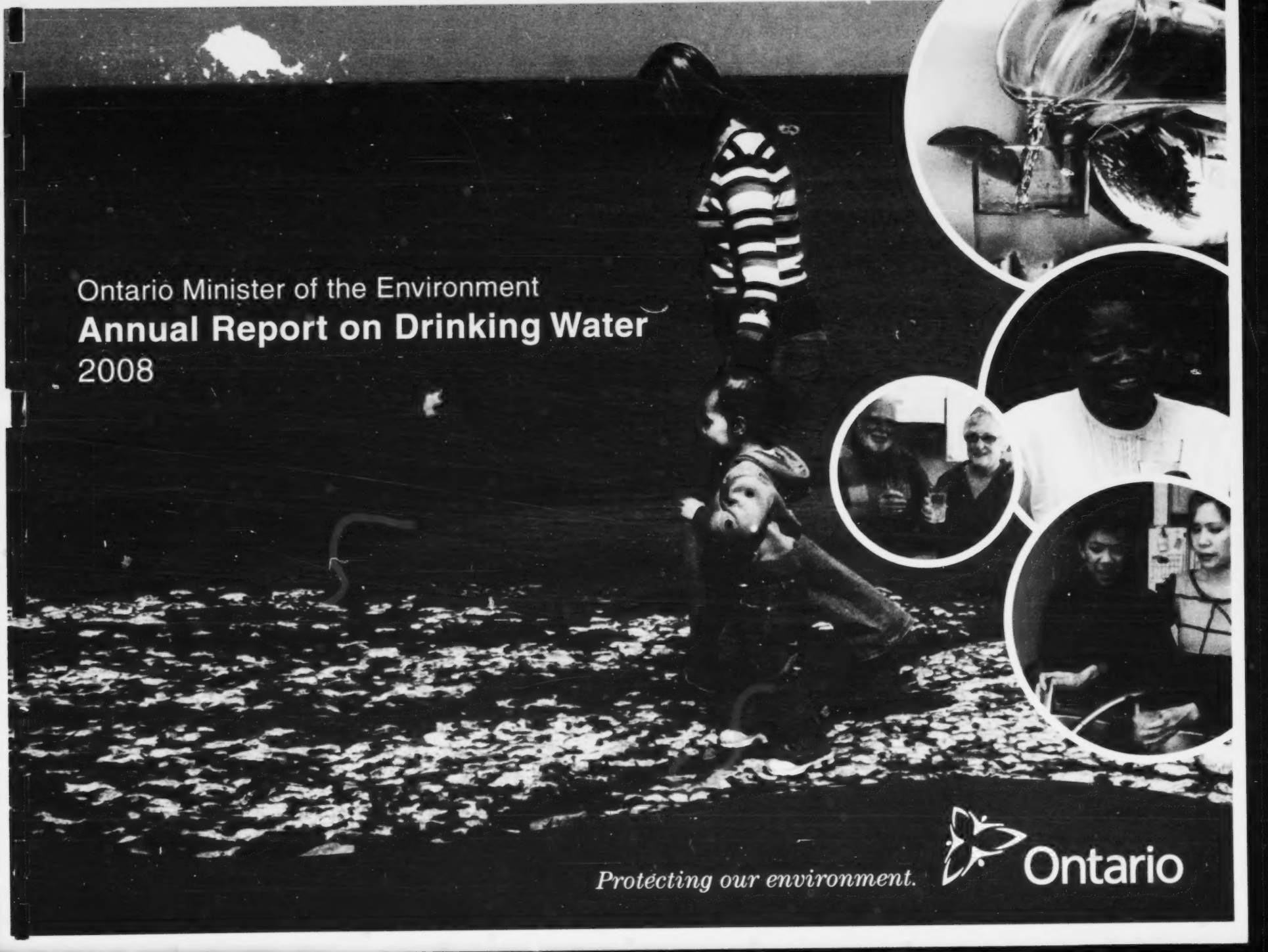

Ontario Minister of the Environment

Annual Report on Drinking Water

2008

Protecting our environment.

Ontario

I am interested in your thoughts

I believe that the people of Ontario deserve to be confident in the quality of the water that comes from their taps. I am very interested in hearing your thoughts and ideas about the subjects discussed in this, the second annual Minister's report on drinking water.

Please contact us at drinking.water@ontario.ca.

For more information on drinking water, or to download this report, please visit my ministry's Drinking Water Ontario portal, www.ontario.ca/drinkingwater.

You can also contact my ministry's Public Information Centre at 1.800.565.4923 or picemail.moe@ontario.ca.

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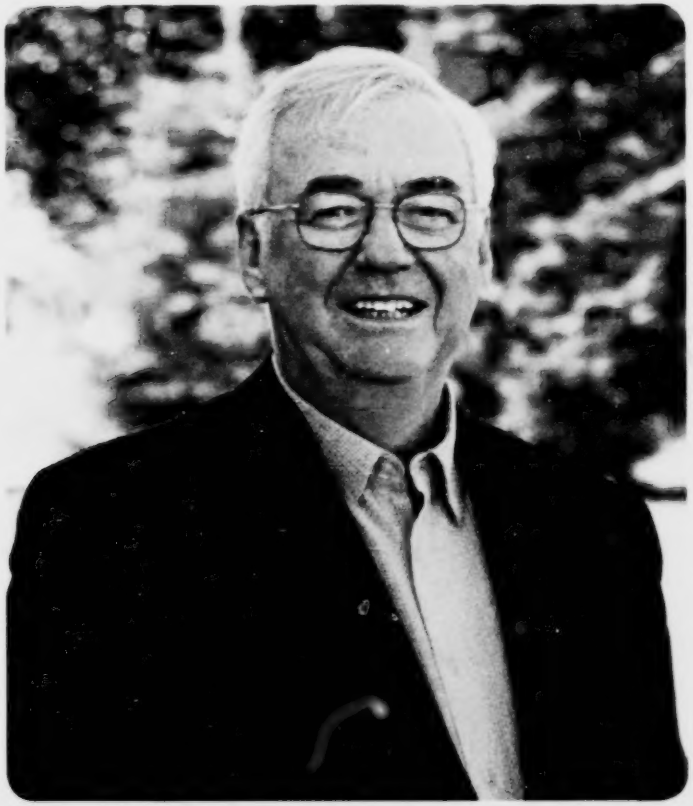
SAFEGUARDING ONTARIO'S DRINKING WATER

A Message from Ontario's Minister of the Environment



The Honourable John Gerretsen, Minister of the Environment.

As Minister of the Environment, I am pleased to present Ontario's second annual drinking water report – and very proud to report on my ministry's results in safeguarding Ontario's water over the past year.

My government has made safe drinking water a priority. In fact, my ministry has led an historic transformation in how we safeguard drinking water in this province by creating a comprehensive safety net to protect public health. To inspire your confidence that the water from our taps is safe and of high quality, my ministry is building on Ontario's position as one of North America's leading jurisdictions when it comes to having systems and programs in place to keep our drinking water safe.

To this end, my government has successfully implemented all 121 of Justice O'Connor's recommendations following the tragic events at Walkerton eight years ago. Achieving this milestone was an important objective. But it is not an endpoint. It is part of our ongoing commitment to continuous improvement and constant vigilance.

Now that Ontario's Clean Water Act, 2006 and its first five regulations have taken effect, Ontario is a leader in protecting its sources of drinking water. This legislation empowers communities to protect their own municipal drinking water supplies through collaborative, locally driven, science-based protection plans. This is also the first legislation of its kind that includes special financial assistance to protect drinking water at its source.

In his recently released 2006-07 annual report, Ontario's Chief Drinking Water Inspector confirmed that Ontario's drinking water safety net is working. According to the report, 99.83 per cent of water quality tests from municipal residential drinking water systems met Ontario's rigorous, health-based standards.

The report also confirmed that the Ontario government takes drinking water protection seriously. When drinking water tests at taps carried out by the City of London revealed levels of lead higher than Ontario's drinking water quality standard, my ministry took swift, effective action to address the issue of lead in drinking water across the province. The result was our Lead Action Plan, which you can read about in this report.

I am very much aware that stewardship of our drinking water is a responsibility my government shares with its partners in communities throughout Ontario and with stakeholders inside and outside government. That is why my ministry has established highly successful partnerships with our municipal stakeholders. We share information and work together to protect our drinking water.

The commitment, time and knowledge of many individuals and organizations across this province helped my ministry achieve the results in this report. I appreciate the good work of Ontario's conservation authorities, municipalities, environmental organizations, source protection committees and grassroots community groups. I am also grateful to the many agencies, associations and organizations that help us safeguard our drinking water, including the Environmental Commissioner's office, the Ontario Advisory Council on Drinking Water Quality and Testing Standards and the Walkerton Clean Water Centre. All have helped me, and will continue to help me, find ways to protect Ontario's drinking water.

Looking toward the future, climate change will have an impact on our water sources. My ministry has developed an aggressive and integrated approach to climate change. As such I have established an expert panel to advise me on climate change adaptation. Here again, partnerships inside and outside government will be key to meeting our goals.

Ontario's supply of fresh water is one of our great advantages, but it is not an infinite resource. We can never take these precious water resources for granted. Just as significantly, we can never take safeguarding our drinking water for granted. You can count on my constant vigilance in helping to protect and sustain our drinking water, from source to tap.

The Honourable John Gerretsen
Minister of the Environment
Queen's Park, Toronto, Ontario
Canada

September 2008

MESSAGE FROM THE MINISTER

INTRODUCTION

This 2008 Minister's Annual Report on Drinking Water was prepared by Ontario's Minister of the Environment, the Honourable John Gerretsen, in accordance with the Safe Drinking Water Act, 2002.

It includes a summary of the government's activities between May 2007 and July 2008 to help protect Ontario's source water and drinking water quality, and builds on the information in the 2007 Minister's Annual Report. It also explains the many ways the ministry, in partnership with individuals and organizations, is safeguarding the province's water resources, including information on emerging issues and highlights of the broader water agenda. In addition, it provides useful links to resources for learning more about the laws, programs and activities described in this report and what you can do to make a difference.

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Looking Ahead 36

KEY ACHIEVEMENTS

[MAY 2007 - JULY 2008]

2007

MAY

Ensuring the Highest Standards for Municipal Drinking Water Systems: The new regulation (O. Reg. 188/07) for licensing municipal drinking water systems is finalized. The sections of the Safe Drinking Water Act, 2002, related to the licensing program are proclaimed.

Statutory Standard of Care: Section 19 of the Safe Drinking Water Act, 2002, which sets out a statutory standard of care, is proclaimed, and will come into force on January 1, 2013. It will require the people who make the decisions over your municipal drinking water system to act responsibly, with competence and integrity.

JUNE

Public Health Units Get New Role in Drinking Water Protection: The Health System Improvements Act, 2007 is passed. When certain provisions are proclaimed in force, it will transfer responsibility for protecting the drinking water of small non-residential and seasonal residential facilities that don't serve designated facilities over to the Ministry of Health and Long-Term Care and public health units.

Protection Against Lead in Drinking Water: The Lead Action Plan is announced and the regulation (O. Reg. 243/07) is passed. In July 2007, O. Reg. 170/03 is amended to include community lead testing and corrosion control plan requirements for drinking water system owners. These expand water safety protections and reduce the risk of exposure to lead in drinking water for pregnant women and childre...

Canada's Toughest Environmental Penalties: We finalize tough regulations against industries that pollute our water.

Renewed Commitment to the Great Lakes: The Ontario and federal governments renew the Canada-Ontario Agreement respecting the Great Lakes basin ecosystem. New areas of cooperation in this agreement include climate change and protection of drinking water sources.

Acting on Climate Change: We set Go Green Ontario Climate Change targets for provincial greenhouse gas emission reductions, from a 1990 baseline, of six per cent by 2014 to 15 percent by 2020 and 80 per cent by 2050, respectively.

2007

Ongoing Transparency and Accountability: The Drinking Water Ontario portal (www.ontario.ca/drinkingwater) is enhanced; inspection ratings and water quality results for municipal residential drinking water systems are posted onto a publicly-available online map of Ontario. The second Annual Report of the Chief Drinking Water Inspector is published. It describes actions taken and results achieved in 2005-06.

Protecting Sources of Drinking Water: We make $7 million available to educate, train and help farmers, property owners and small and medium businesses safeguard our drinking water sources.

JULY

Safeguarding Our Water: The Clean Water Act, 2006, and its first five regulations take effect. Ontario is now a world leader in protecting its sources of drinking water.

Strong Rules for Well Construction and Maintenance: Comprehensive amendments clarify and strengthen Ontario's regulation governing the construction and maintenance of wells.

AUGUST

Appointment of Source Protection Committee Chairs: They are leading the 19 local source protection committees required under the Clean Water Act, 2006.

Investing in Drinking Water Infrastructure: Our government announced a five year $40 million program that will provide assistance to municipalities and Local Services Boards with drinking water systems serving small populations. The Ministry of Energy and Infrastructure launched the first phase as the Ontario Small Waterworks Assistance Program (OSWAP). The first year of OSWAP funding, $8 million, was allocated early in 2008 to 75 municipalities and Local Services Boards. For more information, please visit www.pir.gov.on.ca/english/infrastructure/oswap.htm.

All Walkerton Inquiry Recommendations Implemented: All 121 of Justice O'Connor's far-reaching recommendations are implemented to protect the safety of drinking water. This milestone provides a solid foundation for continuous improvement and constant vigilance.

Water Charges: My government announces it is charging highly consumptive commercial and

2007

industrial users for the water they use to help conserve, protect and sustain Ontario's water resources.

NOVEMBER

New Toxic Reduction Strategy: My government announces it will introduce new toxic reduction legislation to reduce pollution and inform and protect Ontarians from toxic chemicals in our water, as well as in our air, land and consumer products. New legislation will also ban the cosmetic use of pesticides.

DECEMBER

Education and Outreach on Climate Change: I attend the United Nations' Climate Change Conference 2007, to learn what other jurisdictions are doing and confirm the province's support for climate change initiatives.

Local Source Protection Committees: Source Protection Committees are established for the 19 Source Protection Regions/Areas. These committees, supported by their Source Protection Authorities, my ministry and the Ministry of Natural Resources, begin work on the Terms of Reference, which establishes the roles and responsibilities for completion of the assessment reports and source protection plans.

2008

MARCH

First Environmental Penalty: The first-ever environmental penalty for water related pollution, under the province's "you-spill, you-pay" legislation, is issued.

Source Protection Funding: My government fulfils its commitment to provide $120 million in source protection funding by investing the remaining $23.25 million.

Investing in Drinking Water Infrastructure: My government committed $450 million through the Municipal Infrastructure Investment Initiative to assist 243 communities across the province to build, renovate and expand local infrastructure. This includes $55.1 million for 29 water related projects.

APRIL

More Education and Outreach on Climate Change: Ontario hosts the first annual Climate Change Adaptation Summit. It considers, among other issues, how to adapt water infrastructure.

New Clean Water Act Regulation Announced: My ministry posts a proposed regulation on the Environmental Registry to introduce requirements to govern the Ontario Drinking Water Stewardship Program. The regulation came into force in June 2008 and provides funding to communities to protect drinking water sources.

JUNE

Moving Forward to Protect Lake Simcoe: My government introduces Bill 99, the proposed Lake Simcoe Protection Act, 2008. If passed, the legislation would authorize a protection plan that sets the framework for protecting and restoring the lake and its watershed. This builds on the discussion paper released in March and the establishment of the Lake Simcoe Science Advisory Committee.

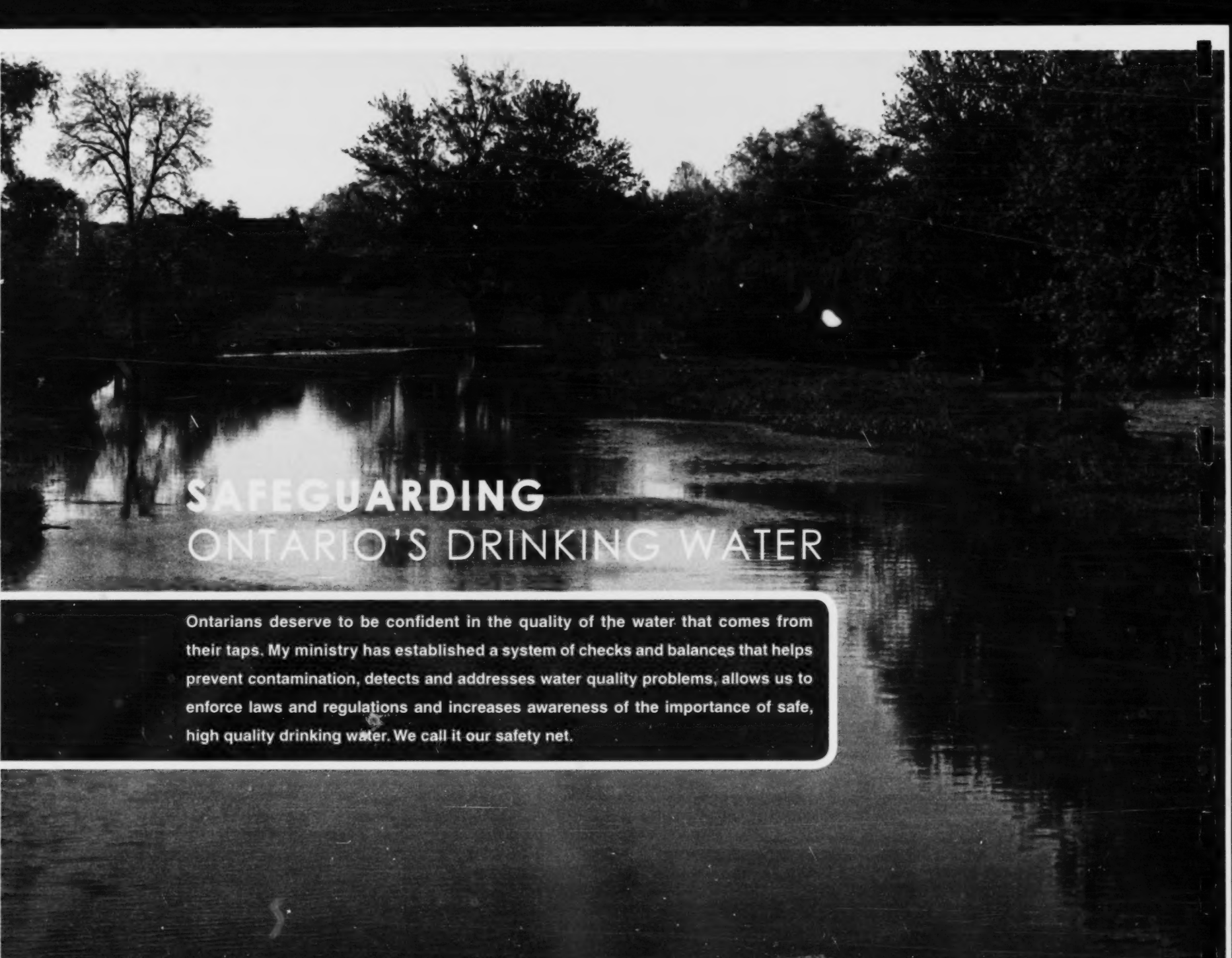
Cosmetic Pesticides Ban Act Passed: This legislation will help protect Ontario's children and families from needless exposure to harmful chemicals and reduce the amount of pesticides entering our waterways. The Act will ban the sale and use of pesticides for cosmetic purposes as prescribed by regulation.

Public Reporting: My ministry released the Chief Drinking Water Inspector's Annual Report 2006-07.

Proposals for the Second Phase of the Clean Water Act Regulations Posted: My ministry posted the final component of the second phase of proposed regulations relating to the development of an assessment report and the definitions of words and expressions used in the Act.

JULY

More Support for Source Waters: Another $7 million under the Ontario Drinking Water Stewardship Program is made available to protect sources of drinking water across the province until local source protection plans are in place. This is part of my government's commitment to provide a total of $28 million over four years in Clean Water Act funding, beginning in 2007 and continuing through to 2011.



SAFEGUARDING
ONTARIO'S DRINKING WATER

Ontarians deserve to be confident in the quality of the water that comes from their taps. My ministry has established a system of checks and balances that helps prevent contamination, detects and addresses water quality problems, allows us to enforce laws and regulations and increases awareness of the importance of safe, high quality drinking water. We call it our safety net.

ONTARIO'S DRINKING WATER SAFETY NET

I am proud to say that we built this system in collaboration with our partners and stakeholders, including my ministry, other provincial ministries and agencies, federal government, municipalities, conservation authorities, farming community associations, environmental organizations, grassroots community groups and the public.

Our safety net has eight components, each equally important. Together they provide the means to comprehensively safeguard drinking water, from source to tap. In my ministry's recently completed jurisdictional review of best practices in drinking water, Ontario was a leader in five of the eight safety net areas, relative to six other international jurisdictions.

Our government has created an effective safety net for our drinking water systems, making our tap water among the best protected in the world.

The safety net components are:

- Strong legislation and regulatory framework;
- Timely, reliable testing;
- Immediate notification and corrective action on adverse water quality incidents;
- Licensing, operator certification and training;
- Inspections;
- Enforcement of regulations;
- Integrated information management; and
- Delivering education and outreach initiatives and providing public access to information.

This section provides some highlights of our activities between May 2007 and July 2008. For a full report on all elements of the drinking water safety net, I encourage you to read the Chief Drinking Water Inspector's Annual Report 2006-07 on the Drinking Water Ontario portal, **www.ontario.ca/drinkingwater**.

STRONG LEGISLATION AND REGULATORY FRAMEWORK

Clean Water Act and Protecting Local Source Water

Ontarians can be confident that steps are being taken to safeguard our drinking water sources. The legislative and regulatory framework my government has forged with the support of our partners inside and outside the government of Ontario will serve to protect us and the generations to come.

Clean Water Act, 2006

Through Ontario's Clean Water Act, 2006, my ministry has put the power to protect local source water in the hands of Ontario's communities – our municipalities, conservation authorities, property owners, farmers, industry, community groups, First Nations and citizens.

Ontario's Clean Water Act, 2006 became law in October 2006. Regulations establishing the framework for the source protection planning process are now being rolled out. This groundbreaking, comprehensive legislation, with its emphasis on prevention, is a key part of a multi-barrier approach to protecting drinking water at its source.

A regulation to introduce requirements for the Ontario Drinking Water Stewardship Program was posted for comment on the Environmental Registry in April 2008 and came into force in June 2008. This program provides financial help to farmers and small rural businesses to take action to reduce threats to local drinking water sources. Also posted in June were the proposed regulations relating to the definitions of certain words and expressions used in the Act, and the development of an assessment report that assesses the vulnerability of drinking water sources and risks to those sources. All regulations are intended to be in place within the next two years in Ontario.

Get Involved In Your Community's Source Protection Planning

The work produced by your local community source water protection committees is open for public input. Each committee includes members of the public, along with municipal representatives and economic stakeholders such as farmers and manufacturers. Ontario's 19 committees are required to identify potential risks to local drinking water sources. They will develop source protection plans designed to reduce those risks. To find out how to get involved, go to:

www.conservation-ontario.on.ca/source_protection/otherswpregionsIndex.htm.

Claude Coussineau, Chair for Raisin-South Nation Source Protection Region and Craig Ashbaugh, Chair for Lake Erie Source Protection Region.

Implementing Justice O'Connor's Recommendations

I am proud to say we have implemented all 121 recommendations of the Justice O'Connor Report of the Walkerton Inquiry. In the 2007 Minister's Annual Report, we reported that 103 recommendations, on a wide range of subjects related to drinking water protection, had been implemented.

Justice O'Connor's recommendations, along with the required legislation, regulations and policies that my government has put in place, form the foundation of the government's drinking water protection framework. They provide Ontario's people with confidence that our drinking water is safe, protected and of high quality, from source to tap.

Here are a few highlights of our actions in implementing the recommendations:

- The Clean Water Act, 2006, along with its regulations, will serve to protect drinking water sources through the development of source protection plans in watersheds across Ontario;
- All municipal drinking water systems will be required to meet licensing requirements and adopt a drinking water quality management approach, including requirements for accreditation and operational plans;
- All operators must meet rigorous certification requirements, including mandatory certification courses for new and current operators;
- We established the Walkerton Clean Water Centre to improve training for drinking water system owners, operators and operating authorities;
- We established improved standards for drinking water quality and treatment technologies and developed regulatory requirements that cover more systems; and
- We established the Advisory Council on Drinking Water Quality and Testing Standards, to provide me with expert advice on drinking water standards, legislation, regulations, and issues.

You can count on continuing vigilance from the Ontario government and its partners in safeguarding our drinking water. Implementing the recommendations does not mean our work is done. For example, while much of the framework is now in place, the work of preparing source protection plans and licensing municipal drinking water systems will be ongoing. As technology and standards change, the intent of the recommendations will guide the government as it acts to protect and conserve Ontario's drinking water and its sources.

I am proud to say we have implemented all 121 O'Connor recommendations.

Financial Support for Early Action

My government listened and responded to the farmers and small rural property owners who told us they need financial assistance to take early action in protecting Ontario's drinking water sources. We consulted with our Advisory Panel on the Ontario Drinking Water Stewardship Program to make sure we meet this need.

On the advice of the Advisory Panel, my ministry began to provide farmers, property owners and small rural businesses with $7 million, in 2007-08, through our Source Protection Program. Here is how my government allocated that money:

- $4 million invested for early actions to protect drinking water sources immediately within surface water intake and wellhead protection areas. This might include closing down abandoned wells, upgrading usable wells, inspecting and upgrading septic systems, installing runoff and erosion control measures, conducting pollution prevention reviews and removing physical threats such as transformers and gasoline storage tanks. These funds are available to property owners from the conservation authorities, and available to farmers through the Ontario Soil and Crop Improvement Association on behalf of the Ontario Federation of Agriculture;
- More than $2 million on more than 20 programs that are helping farmers, property owners and businesses learn about the Clean Water Act, 2006, and understand what they can do to protect Ontario's source water; and
- Almost $1 million on special projects that complement the other early action initiatives.

My ministry will continue supporting Ontarians in protecting sources of drinking water through the Ontario Drinking Water Stewardship Program with $7 million per year over the next three years, to 2011, for a total of $28 million over four years.

Education and Outreach for Ottawa-Gatineau Region

Pollution Probe, in partnership with 11 other organizations, including water managers from every part of the Ottawa-Gatineau region,* is using $20,000 in source protection funding to produce the Ottawa-Gatineau Watershed Atlas website. The public will be able to explore their watersheds online and learn about what they can do to conserve and protect their source water.

The organizations agreed that the website will allow them to share and access water resource data at the regional level. Together, and with the help of the local community panel, they developed a comprehensive, user-friendly design for an information portal.

Once it goes live, the site will teach people in this community about the importance of source water, how they can get involved, actions they can take in their home and workplace, and government rules and regulations relevant to source protection. It will also help water managers to communicate regionally, and communities to monitor their source protection areas. In addition, it will be a great teaching tool for local schools and postsecondary institutions.

The Ottawa-Gatineau Watershed Atlas is already a success – in showing how several jurisdictions can work together in partnership to share information and develop their own watershed management strategy.

*Abitibi-Bowater; Centre for Sustainable Watersheds; Comité du bassin versant de la rivière Gatineau; Conseil régional de l'environnement et du développement durable de l'Outaouais; Conservation Ontario; Federation of Canadian Municipalities; Heritage Canada; Institute for Watershed Science; Ministry of Natural Resources - Kemptville; Mississippi Conservation Authority; Regroupement des organisations de bassin versant du Québec; Rideau Valley Conservation Authority.

Local Source Protection Committees Across Ontario

Ontario's 19 source protection committees will be leading the effort to identify potential risks to local water sources and will develop policies designed to reduce or eliminate these risks. The approximately 300 members of the committees represent watershed stakeholders such as municipal, agricultural, landowners, industry, environmental non-government organizations and members of the public. They're hard at work throughout Ontario, building on the measures many municipalities have already taken to protect drinking water. Since January 2008, they have been working on their Terms of Reference that will outline the work that needs to be done to prepare for the local source protection plans that are expected by 2012.These committees were able to start right away because much of the information they needed was ready and waiting for them. It came from Ontario's conservation authorities, which have gathered and analyzed the data in preparation for these committees for the past three years.

My government provided $120 million between 2004 and 2008 to cover these costs. An investment of $23.25 million in March 2008 completed this funding commitment.

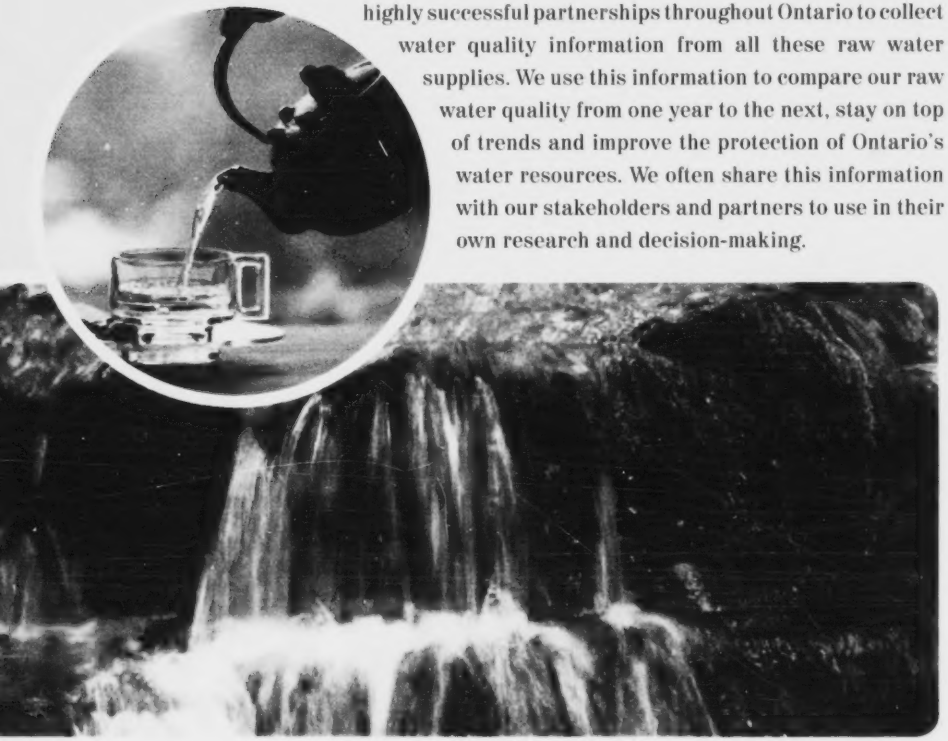
The 19 Source Protection Committee Chairs present at the Chairs Quarterly Meeting on June 2, 2008.

> "From the smallest action to conserve household water to the largest project to improve the sources of our drinking water, we all have the opportunity to take action to protect our drinking water."

- Tom Fuerth,
Chair, Essex Region Source Protection Committee

Monitoring the Quality of Ontario's Source Water

Our drinking water comes from Ontario's rivers, lakes, streams and groundwater sources. These drinking water sources are known as raw water supplies or source water. My ministry has established highly successful partnerships throughout Ontario to collect water quality information from all these raw water supplies. We use this information to compare our raw water quality from one year to the next, stay on top of trends and improve the protection of Ontario's water resources. We often share this information with our stakeholders and partners to use in their own research and decision-making.



These highly successful partnerships include:

- The Great Lakes Monitoring Program, under the Canada-Ontario Agreement respecting the Great Lakes Basin Ecosystem, is a coordinated federal and provincial scientific monitoring and research program. It monitors, assesses and reports on the quality of water in the Great Lakes. For more information, please go to **www.ene.gov.on.ca/en/water/greatlakes/index.php**.

- The Provincial (Stream) Water Quality Monitoring Network Program provides conservation authorities and other users with their main source of surface water quality data about Ontario's rivers and streams. As of February 2008, this program was collecting water samples eight times a year from more than 400 strategic monitoring locations, and getting information on the chemistry of the water. For more information, go to **www.ene.gov.on.ca/programs/5310e.htm**.

- The Provincial Groundwater Monitoring Network includes 465 monitoring wells that provide information about groundwater levels and quality to Ontario's conservation authorities and 10 municipalities outside conservation authority jurisdiction. The wells are for monitoring purposes only and do not supply water. This program is a warning system for groundwater quality and quantity issues. It also provides important information for climate change adaptation activities, drought response, source protection planning, water allocation and the development of policies and standards. For more information, go to **www.ene.gov.on.ca/programs/5311e.htm**.

- The Drinking Water Surveillance Program monitors, assesses and publicly reports on the quality of untreated source water and treated drinking water in Ontario's municipalities, based on samples from 116 municipal drinking water systems. This information helps us develop water quality standards and policies. We provide our findings to participating municipalities, and the public can get this information on our website. For more information, go to **www.ene.gov.on.ca/envision/water/dwsp/0002/index.htm**.

Safe Drinking Water Act Improvements

The Safe Drinking Water Act, 2002 was enacted to protect the health of Ontarians through a consistent set of standards and rules to safeguard Ontario's drinking water. Among our accomplishments over the past year, we've made sure that:

- Municipalities that own municipal residential drinking water systems will be required to obtain a Drinking Water Licence before operating a drinking water system. More information about the municipal licensing program is on page 17; and
- Those people with the authority to make decisions about municipal drinking water systems will have to meet a statutory standard of care once the provision is in force in 2013. This means they must exercise the level of care that a reasonably prudent person would be expected to exercise in a similar situation, with a view to ensuring the protection and safety of the users of the municipal drinking water system.

Update on Our Lead Action Plan

We announced the Lead Action Plan, in June 2007, in response to reports of elevated levels of lead in drinking water from homes. The plan protects the health of the people who can be most affected by the effects of lead – young children and pregnant women – and also reduces the risk of lead exposure for everyone else. It is another testament to the partnerships in action to protect drinking water throughout Ontario and includes the following components:

- All schools, private schools and day nurseries with plumbing installed before 1990 have to flush their plumbing daily to reduce lead content at the tap, because flushing works. They also have to test their drinking water for lead annually and, if the test results indicate too much lead, corrective action is to be taken by the operator as directed by the local medical officer of health. You can view this regulation at **www.e-laws.gov.on.ca/html/regs/english/elaws_regs_070243_e.htm**;
- Municipal and non-municipal year-round residential systems have to regularly test for lead in tap water in a number of homes and non-residential facilities. If a system's tests show too much lead in the tap water at a particular location, action must be taken. The system owner is required to notify the occupants of the location and, in consultation with the local health unit, advise the occupants about how they may address the problem;
- Working with the Ministry of Community and Social Services, we have provided money to buy filters, where they are recommended, to low-income parents with young children and pregnant women;
- Where high lead levels are detected at a significant number of sampling locations within large municipal residential systems, municipalities must develop a plan on how to adjust the water chemistry in their systems so the water picks up less lead; and
- We encourage municipalities to educate the public, when it is necessary, and make lead line replacement more affordable for homeowners.

My ministry developed new products to help schools, private schools and day nursery operators understand their new responsibilities for flushing the plumbing in their facilities and for taking drinking water samples to be tested for lead. These products include a plain language guide, information webcasts, and "at-a-glance" posters and how-to videos on proper flushing and sampling.

In addition, we developed materials, sessions and webcasts to help municipalities and owners and operators of non-municipal year-round residential systems understand their new lead testing requirements. You can view all products on the Drinking Water Ontario portal at **www.ontario.ca/drinkingwater**. Information updates on the implementation of the Lead Action Plan will also be posted on the portal.

More Safeguards for Wells

It's essential for the safety of our drinking water that Ontario's wells are properly constructed and maintained. In addition, wells that are not in use or maintained for future use must be properly plugged and sealed, to prevent contaminants (substances that can harm our health) from entering our groundwater.

That's why my government amended the Wells Regulation (Reg. 903), under the Ontario Water Resources Act. These amendments provide the people who construct wells with clearer direction on how they must meet their legal responsibilities to help safeguard public health and the drinking water that comes from Ontario's groundwater.

Ontario Well Statistics

- About three million people in Ontario rely on groundwater from wells as their primary source of drinking water.
- Ontario has about 600,000 drinking water wells.
- Ontario constructs 15,000 to 20,000 new wells annually.

The regulation sets out the minimum standards everyone who constructs wells must meet. These include:

- Where wells can be located, how they must be constructed and how they have to be disinfected;
- How wells must be tagged and reported, how they should be maintained, and how to abandon them properly; and
- Licensing criteria for well contractors and well technicians.

The amendments include provisions to:

- Create a new class of well technician licence for medium risk activities associated with monitoring, sampling and testing activities;
- Exempt certain professional groups from the new class of licence;
- Strengthen disinfection procedures; and
- Provide an alternative to mandatory abandonment for wells that produce water that is not potable.

You can find more information on wells on the Drinking Water Ontario portal at **www.ontario.ca/drinkingwater**. For more information on wells and the Well Aware program see page 23.

Once provisions of the Health System Improvements Act, 2007 and proposed accompanying regulations are in force, oversight responsibility for five categories of non-residential and seasonal residential systems (i.e., small drinking water systems), will move from my ministry to the Ministry of Health and Long Term Care with services delivered by the public health units. Public health units are well suited to oversee these systems as they are knowledgeable, and have existing relationships with many of the system owners.

Public health inspectors will be well informed about the risk-based assessments practical for each specific site. The Walkerton Clean Water Centre will be providing technical training.

Before developing this legislation, my ministry's staff consulted extensively with drinking water experts, system owners and operators. My ministry will continue to regulate municipal residential drinking water systems, non-municipal year-round residential systems, as well as systems that serve designated facilities such as schools, day care facilities and children's camps.

Ontario's Small Drinking Water Systems

- Municipally-owned airports
- Industrial parks
- Sports and recreational facilities
- Places of worship
- Small community centres
- Libraries
- Private cottages that use shared drinking water systems
- Motels, resorts and bed and breakfasts
- Tourist outfitters
- Seasonal campgrounds
- Trailer parks

Protection for Small Drinking Water Systems

Once provisions of the Health System Improvements Act, 2007 and proposed accompanying regulations are in force, oversight responsibility for five categories of non-residential and seasonal residential systems (i.e., small drinking water systems), will move from my ministry to the Ministry of Health and Long Term Care with services delivered by the public health units. Public health units are well suited to oversee these systems as they are knowledgeable, and have existing relationships with many of the system owners.

Public health inspectors will be well informed about the risk-based assessments practical for each specific site. The Walkerton Clean Water Centre will be providing technical training.

Before developing this legislation, my ministry's staff consulted extensively with drinking water experts, system owners and operators. My ministry will continue to regulate municipal residential drinking water systems, non-municipal year-round residential systems, as well as systems that serve designated facilities such as schools, day care facilities and children's camps.

Ontario's Small Drinking Water Systems

- Municipally-owned airports
- Industrial parks
- Sports and recreational facilities
- Places of worship
- Small community centres
- Libraries
- Private cottages that use shared drinking water systems
- Motels, resorts and bed and breakfasts
- Tourist outfitters
- Seasonal campgrounds
- Trailer parks

LICENSING, OPERATOR CERTIFICATION AND TRAINING

Municipal Drinking Water Licensing Program

To safeguard the water that flows out of our taps from Ontario's municipal drinking water systems, Ontario continues to move forward on implementing the municipal drinking water licensing program – one of Justice O'Connor's key recommendations.

We are the first jurisdiction in North America to mandate that all municipal residential drinking water systems incorporate a drinking water quality management system at their facilities. This is a set of quality management processes, adapted for drinking water, that have been very successful in other industries. To this end, my ministry has worked closely with Ontario's top drinking water sector experts and professionals over the past three years to craft our own "made in Ontario" quality management standard, called the Drinking Water Quality Management Standard (DWQMS). It provides a framework for operating authorities to develop and document management procedures.

To further protect our drinking water, my ministry is also introducing an owner's licence for municipal residential drinking water systems. To obtain their licences, owners will need:

- A Drinking Water Works Permit;
- A Permit to Take Water;
- A Financial Plan;
- An Operational Plan; and
- An Accredited Operating Authority, which confirms that the system's operating authority has implemented a quality management approach that meets Ontario's DWQMS.

I know municipalities, owners and operating authorities may need our help to understand their new responsibilities. To respond to their needs, my ministry released detailed information about their new requirements, and hosted a number of well-attended workshops across Ontario to explain the new rules. My ministry will phase licensing in between 2009 and 2012.

Walkerton Clean Water Centre Delivers Training

My government kept its promise to build a permanent facility for the Walkerton Clean Water Centre (WCWC). Construction in Walkerton is anticipated to begin this fall. The current WCWC facilities in Walkerton provide training to the drinking water professionals responsible for delivering high quality drinking water across the province. The WCWC pays special attention to smaller, remote and older systems and First Nations communities. Between October 2005 and May 31, 2008, the WCWC trained more than 11,300 drinking water professionals.

Among its activities, the WCWC:

- Coordinates and delivers mandatory and specialized technical training courses to Ontario's drinking water system owners and operators, including First Nations operators;
- Administers a correspondence course and offers on-line training;
- Demonstrates leading-edge technology for drinking water treatment and distribution via its Technology Demonstration Facility; and
- Established a mobile training unit to provide training and outreach in northern Ontario, and is developing a second mobile training unit that will be operational in 2008.

For more information, please visit **www.wcwc.ca**.

Pictured above at the sign unveiling are, left to right: Mr. Murray Elston, Chair, WCWC Board of Directors; Ms. Carol Mitchell, MPP, Huron-Bruce; Dr. Saad Jasim, CEO, WCWC; Mayor Charles Bagnato, member, WCWC Board of Directors.

My government has worked hard to confirm that Ontario has skilled and knowledgeable people running our drinking water treatment plants. Our operators must meet strict certification requirements, and undergo the most comprehensive training in North America. That includes operators of every municipal residential drinking water system, every non-municipal year-round residential system, every large non-residential system (municipal and non-municipal) that serves designated facilities and other regulated systems that meet certain criteria.

Ontario's municipal drinking water operators must complete an intense two-week training course and pass a rigorous certification exam. To maintain their certification, our operators must continue learning about the latest technologies, treatment methods and emerging public health risks to our drinking water. They devote 20 to 50 hours every year on this additional training.

To educate the next generation of operators, eight community colleges now include a comprehensive water curriculum in their environmental technician and technologist programs. The collaborative efforts of my ministry, the Walkerton Clean Water Centre and the community colleges will help make vital training available and accessible throughout the province, helping to provide Ontario with a long-term supply of conscientious, knowledgeable people to keep our drinking water safe.

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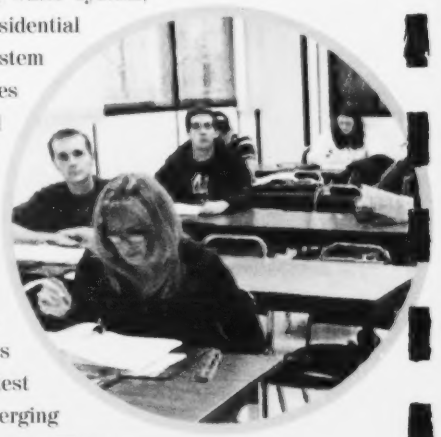

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INSPECTIONS

Ontario's Drinking Water Owners Must Meet Strict Requirements

Ontario's municipalities continue to deliver high quality drinking water to homes, institutions and businesses in their communities.

Inspecting drinking water systems is an important part of protecting drinking water. Inspections conducted by my ministry help determine whether drinking water systems are in compliance with regulations.

My ministry's risk-based inspection rating process provides a real measure of inspection results that can be compared year to year. Overall, municipal residential drinking water systems' operations are very good, and continue to improve. Forty per cent of municipal residential drinking water systems achieved a 100 per cent inspection rating in 2006-07 – a seven per cent increase over 2005-06 results.

That's a real tribute to our municipalities and our inspectors, who inspect every municipal residential drinking water system every year and work closely with municipalities towards my ministry's goal of achieving 100 per cent regulatory compliance across the province.

Key Findings of Municipal Residential Drinking Water System Inspections in 2006-07

We inspected all 707 municipal residential drinking water systems in Ontario.

We gave an inspection rating of more than 90 per cent to 92 per cent of inspections.

We issued 23 orders to 20 municipal residential drinking water systems to correct non-compliance or prevent a potential health hazard.

We issued 44 orders to 41 non-municipal year-round residential drinking water systems and systems that serve designated facilities.

We issued three orders to three Local Services Boards' Drinking Water Systems.

Licensed Laboratories

I am pleased that inspection results show that Ontario's licensed laboratories achieved 100 per cent compliance with health-related requirements. Our drinking water testing laboratories are licensed by my ministry to test drinking water samples. They carefully test drinking water samples for contaminants, and compare their test results to the provincial standards for maximum allowed concentrations of contaminants. My ministry inspects every single licensed laboratory at least twice annually, and half of our inspections must be unannounced.

For more information on my ministry's inspection program, please see the 2006-07 Chief Drinking Water Inspector's Annual Report at **www.ontario.ca/drinkingwater.**

Key Findings of Licensed Drinking Water Testing Laboratory Inspections in 2006-07

- All 57 licensed laboratories were inspected at least twice during 2006-07.
- 57 of our inspections were unannounced.
- 10 inspections were conducted in response to public complaints or concerns of ministry staff.
- Five orders were issued and they were all successfully resolved within several days.

ENFORCEMENT OF REGULATIONS

My ministry's Investigations and Enforcement Branch investigates alleged violations of Ontario's environmental protection laws. I expect staff to be fair and impartial. I also expect them to follow the steps necessary to make sure people or businesses who risk the safety of our drinking water are accountable.

If you spill, you pay

My government is sending a clear signal that we will not tolerate industrial spills on land and water. Ontario has begun levying the toughest administrative penalties in Canada against industries that spill pollutants into our water. These are monetary penalties aimed at discouraging poor environmental performance – if you spill, you pay. They also encourage companies to make greater efforts to prevent spills, and provide additional incentives to clean spills up quickly if they occur. The law also includes stronger rules for spill protection and reporting requirements.

Tough Fines for Endangering Ontario's Drinking Water in 2006-07*

- 22 convictions against 24 municipal residential drinking water systems, resulting in $154,000 in fines.
- Two convictions against two non-municipal year-round residential drinking water systems, resulting in $8,000 in fines.
- Two convictions against two drinking water systems serving designated facilities, resulting in $9,000 in fines.
- Two convictions against one licensed laboratory, resulting in $54,000 in fines.
- One conviction against a municipal residential drinking water system and licensed laboratory, resulting in a $28,000 fine.
- One conviction against a private car wash for discharging a detergent into a drinking water distribution system, resulting in a $75,000 fine.

*These conviction numbers do not include drinking water systems that will be transferred to the Ministry of Health and Long-Term Care for oversight.

DELIVERING EDUCATION AND OUTREACH INITIATIVES AND PROVIDING PUBLIC ACCESS TO INFORMATION

Everyone in Ontario has a role to play in protecting our drinking water. That's why I've emphasized, throughout this report, the importance of the many partnerships we've established to protect our drinking water.

My ministry provides the regulated community with easy access to clear information on what they are required to do. I make sure it's easy for you to see what we're doing – through this report, through our Drinking Water Ontario portal, the Chief Drinking Water Inspector's Annual Report and through ministry presentations at key conferences and events, among other activities. Over the past year, for instance, my ministry hosted province-wide information sessions on lead testing to help municipal and non-municipal owners and operators learn about the importance of complying with the new rules, as well as sessions to explain the new licensing program for municipal water systems to drinking water system owners and operators.

Drinking Water Ontario: A Gateway to Information

For more than a year now, water researchers, drinking water system owners and operators, laboratories, private well owners, students, children and the public have been learning about our water and what we're doing to protect it at my ministry's information Drinking Water Ontario portal (**www.ontario.ca/drinkingwater**) – a Showcase Ontario Merit Winner in the "Serving Ontario Citizens" category.

The site provides extensive drinking water quality and system information as well as drinking water system inspection ratings. You can find your municipality on the drinking water quality map of Ontario, and go to information about your local municipal residential drinking water system as well as their annual reports. There are links just for students, including one that will take children on an animated tour of a drinking water treatment facility.

My ministry plans to keep refreshing this portal so I can continue meeting your need for information about drinking water. If you have any areas of interest you'd like us to consider, please contact us at **drinking.water@ontario.ca**.

Outreach on Wells

My ministry continues to teach well owners about proper well construction and maintenance. We reach out to the more than three million people in Ontario dependent on private wells for their drinking water in many ways:

- Green Facts publications on our website;
- Well owner information kits that well contractors must provide to their clients;
- Information my ministry developed with the Ministry of Agriculture, Food and Rural Affairs; we provide this information, free of charge, to the agricultural community; and
- Well Aware, a program run by Green Communities Canada to motivate private well owners to maintain their wells and properly abandon unused wells. My ministry committed $400,000 annually for three years, starting in 2007, to help them in their work of providing practical solutions and advice through workshops, community forums, visits, booklets, kits, fact sheets and videos.

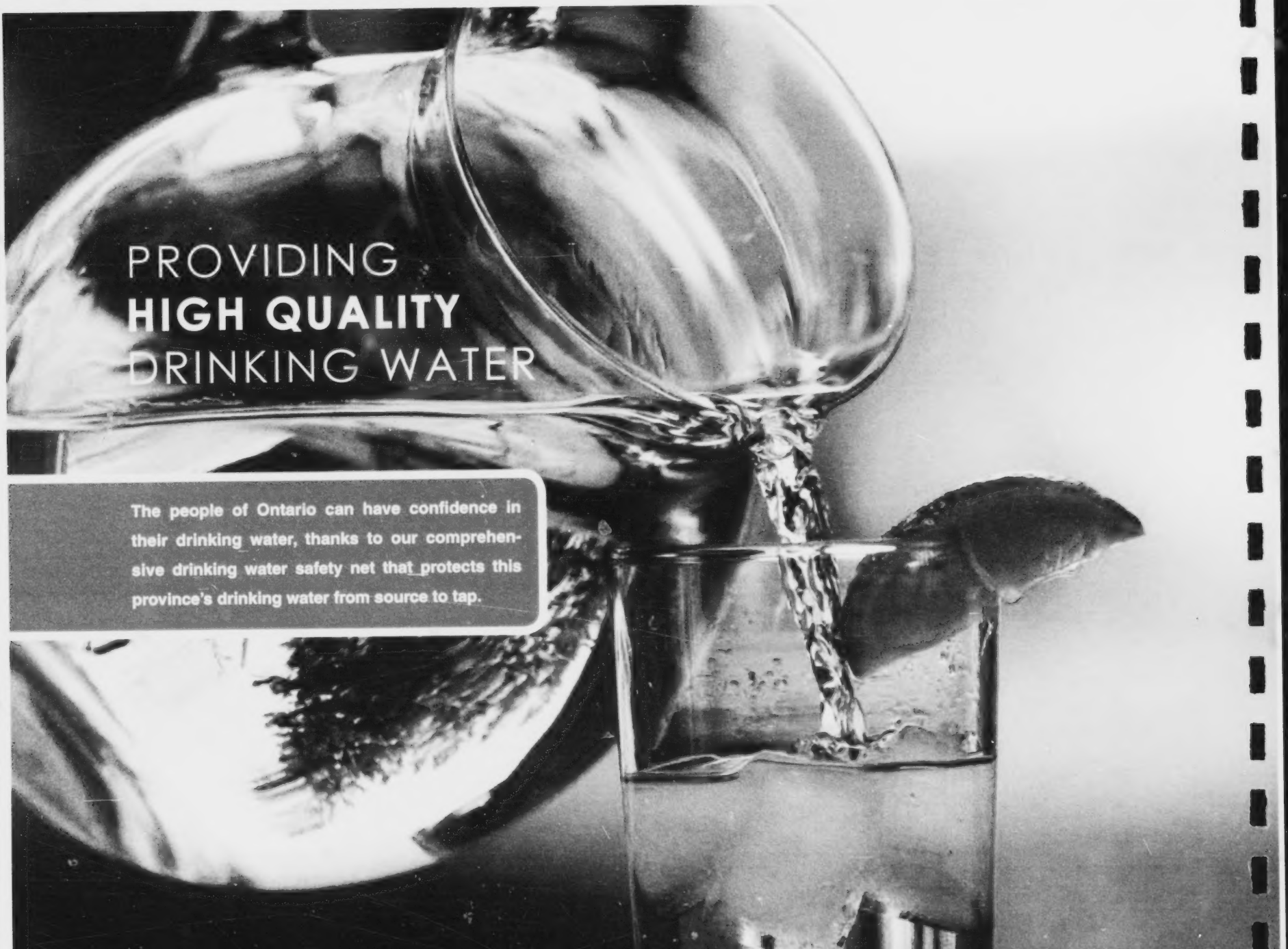
More information on wells can be found on page 15 and on my ministry's Drinking Water Ontario portal at **www.ontario.ca/drinkingwater**.

Clean Water Act Guidance

To assist municipalities in their understanding of the Clean Water Act, 2006, my ministry has:

- Distributed the booklet, *The Clean Water Act – Promoting Municipal Awareness and Understanding*, to municipalities throughout Ontario; and
- Held training sessions for municipalities in partnership with the Association of Municipal Clerks and Treasurers of Ontario.

My ministry has been moving forward on all eight components of Ontario's safety net. The initiatives I've described to safeguard Ontario's drinking water are an important tribute to the dedication of our partners in communities throughout Ontario, and our stakeholders inside and outside of government. They are proof that Ontario's safety net is working.


PROVIDING
HIGH QUALITY
DRINKING WATER
The people of Ontario can have confidence in their drinking water, thanks to our comprehensive drinking water safety net that protects this province's drinking water from source to tap.

STRICT STANDARDS

In 2006-07, according to our Chief Drinking Water Inspector's Report, 99.83 per cent of water quality test samples from Ontario's municipal residential drinking water systems met Ontario's tough drinking water quality standards. The results for Ontario's other drinking water systems were equally impressive: 99.40 per cent of non-municipal year-round residential drinking water systems and 99.49 of drinking water systems that serve designated facilities met our water quality standards. These achievements were the result of strict standards, reliable testing and thorough inspections of drinking water facilities.

As part of my ministry's commitment to objectively confirming that our water is of high quality, my government maintains clear, stringent drinking water standards.

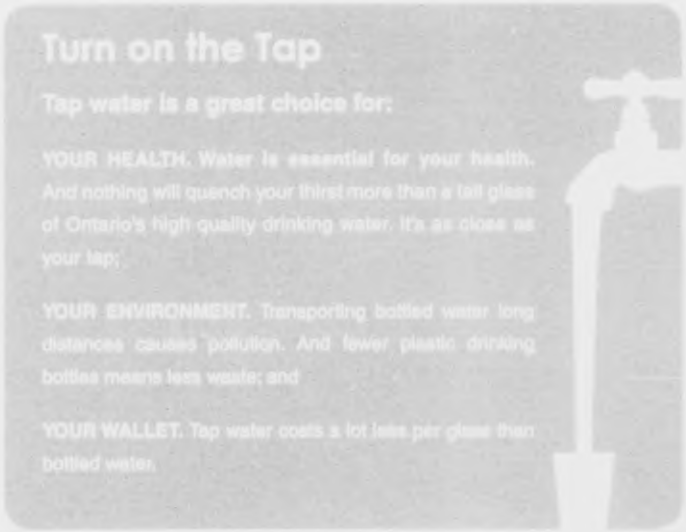
The Ontario Advisory Council on Drinking Water Quality and Testing Standards (the Advisory Council) helps set drinking water standards for Ontario. Its members are experts from the academic world, industry and municipal governments.

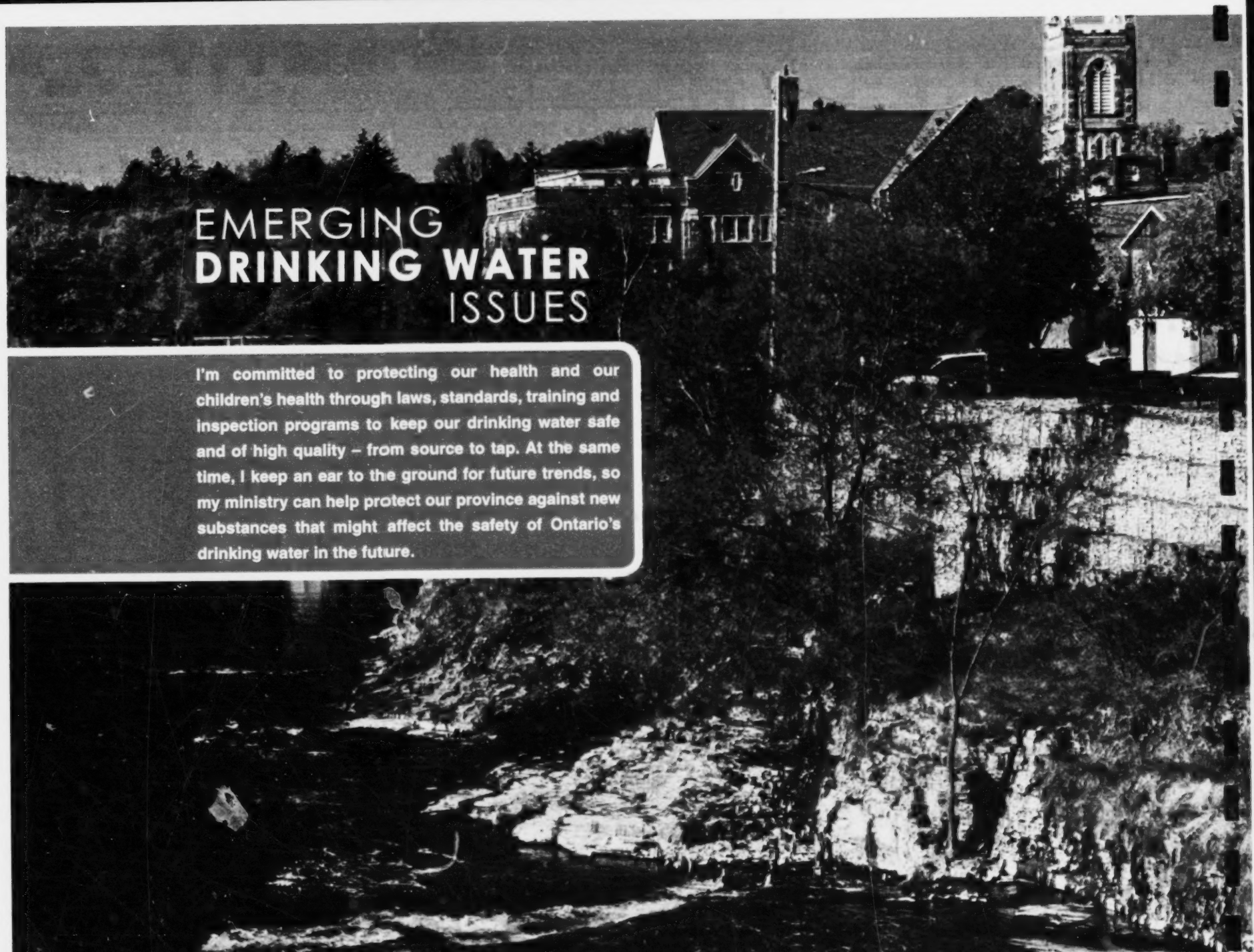
My ministry posts proposals to establish new standards or to change current standards on our Environmental Bill of Rights (EBR) Environmental Registry. More information on the EBR is at www.ebr.gov.on.ca.

The Advisory Council keeps me completely up to date on our standards and also makes sure my ministry responds to the latest research by suggesting changes to the standards. It also advises me on legislation, regulations and issues. With its advice and support, my ministry is able to re-evaluate Ontario's standards every five years in response to new scientific knowledge, or whenever new treatment methods are developed. Last year, for instance, my government asked the Advisory Council to review the current standard for the level of tritium, a form of radioactive hydrogen that may be in drinking water. They conducted a public and stakeholder consultation and are preparing their report.

For more information on the Advisory Council, please visit **www.odwac.gov.on.ca**.

I am pleased that municipalities are continuing to deliver high quality drinking water. The successful partnerships my ministry has established with our municipal stakeholders are an important foundation for the future. My ministry will continue to work with our municipalities to protect our drinking water through proposing strict standards, reliable testing and thorough inspections of drinking water facilities.


Turn on the Tap
Tap water is a great choice for:
YOUR HEALTH. Water is essential for your health. And nothing will quench your thirst more than a tall glass of Ontario's high quality drinking water. It's as close as your tap;
YOUR ENVIRONMENT. Transporting bottled water long distances causes pollution. And fewer plastic drinking bottles means less waste; and
YOUR WALLET. Tap water costs a lot less per glass than bottled water.



EMERGING **DRINKING WATER** ISSUES

I'm committed to protecting our health and our children's health through laws, standards, training and inspection programs to keep our drinking water safe and of high quality – from source to tap. At the same time, I keep an ear to the ground for future trends, so my ministry can help protect our province against new substances that might affect the safety of Ontario's drinking water in the future.

RESEARCH INITIATIVES ON PATHOGENS

My ministry encourages and contributes to investigations and research. We also work closely with other jurisdictions, research organizations and scientific communities around the world to stay aware of the best scientific thinking, the latest research findings and technologies and the latest water protection developments. Our families and children deserve no less.

My ministry continues to investigate innovative new technologies that will help us more quickly and effectively figure out whether there is contamination in our drinking water from sources of pathogens, and the possible risks to human health. A pathogen is an organism that causes disease in another organism. The main pathogens in drinking water are organisms so tiny you can only see them under a microscope.

Third National Workshop on Pharmaceuticals and Personal Care Products in the Canadian Environment

In 2007, my ministry collaborated with national and provincial stakeholders* and hosted this important annual event. The audience of international and national experts learned about Canada's current research on pharmaceuticals and personal care products in the environment and its regulatory framework.

* Environment Canada, Health Canada, Agriculture and Agri-Food Canada, Ontario Ministry of Agriculture, Food and Rural Affairs, the Canadian Water Network, the Walkerton Clean Water Centre.

These new technologies my ministry is now investigating include:

- **Rapid Testing.** My ministry's laboratory is assessing new water testing technologies to reduce the time it takes to obtain results and inform the public about the safety of their drinking water;
- **Tools that Assess Health Risks to Humans.** We are currently evaluating the use of Quantitative Microbial Risk Assessment (QMRA) in answering key questions. QMRA uses a mathematical approach to provide useful information. It can help us, for instance, determine the health risk of exposing people to pathogens if there is a change in water treatment technologies. We can use this tool to help us learn what might happen to our health if there is a change in the quality of the source water or how it is distributed to Ontario's homes and workplaces. And it could be useful in helping us find the best options for treating drinking water in the future so that it stays safe to drink; and
- **Research on Pathogens in Source Water.** My government has contributed funding to the Canadian Water Network, along with Alberta and New Brunswick, to support research on the detection and mobility of pathogens in groundwater that is used as a source of drinking water.

OTHER RESEARCH INITIATIVES

My ministry, along with many other Canadian and international groups, monitors the environmental fate of chemicals that could end up in our drinking water. These include chemicals we create when we develop certain products as well as new combinations and interactions of chemicals we already know about. Pharmaceuticals and personal care products can contain chemical pollutants that can make their way into our water through septic systems, sewage treatment plants and certain agricultural practices. They include over-the-counter medications, antibiotics, musks (perfumes), steroids, and natural and synthetic hormones.

Encouraging Findings

My ministry has been studying whether the treatment used at water treatment plants can reduce the levels of pharmaceuticals and other emerging contaminants in untreated source water. To help us figure out the level of these chemicals in our drinking water, my ministry's laboratory analyzed the levels of these compounds in source water and drinking water at 17 Ontario water treatment plants between September 2005 and December 2006. The preliminary results are encouraging:

- Processes used by local water treatment plants can reduce the levels of pharmaceuticals and other emerging contaminants in drinking water; and
- The amount of pharmaceuticals or other emerging contaminants in drinking water is very small – nanograms per litre or parts per trillion.

Ongoing Studies

My ministry will continue studying and supporting research on pharmaceuticals and other emerging contaminants. I expect to report back to you next year on their detection, surveillance and treatment.

We are also looking into the levels of perfluorinated chemicals (substances used to make special plastics and also to make water and stain-repellent fabrics and carpets) in our source water, drinking water and aquatic life.

NEW WORLD CLASS DRINKING WATER TECHNOLOGIES

I am delighted to report that Ontario's businesses are developing world class technologies to improve our detection of harmful pathogens and chemicals and help us remove or minimize their entry into our waterways. Ontario environmental industries now represent about 40 per cent of the Canadian environmental industry sector revenues. These industries offer a range of products and services. Some of Ontario's companies are developing drinking water treatment systems. Others are finding ways to protect our source water. Still others are developing technologies to help us conserve water at home and at work. I encourage you to read about them on the Ontario Environmental Business Directory, at **www.envirodirectory.on.ca**.

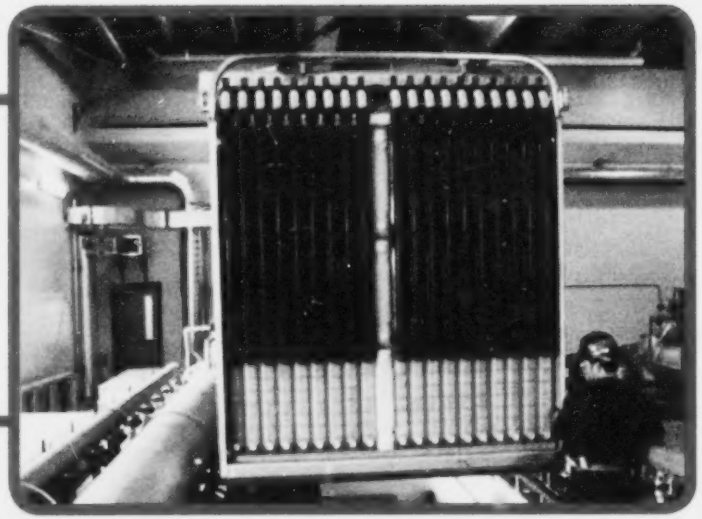
My ministry will continue to strengthen our safety net by partnering in research with universities and the federal government to learn more about emerging pathogens and chemical pollutants. We will work in close cooperation to assess treatment technologies that will remove these harmful substances from our source and drinking water.

Supporting Environmental Businesses at GLOBE 2008

This province is home to many innovative companies that are developing world class "made in Ontario" technologies that are making drinking water safer around the world. In March 2008, I was proud to lead a delegation of such companies and organizations, representing more than 200 of Ontario's green industries, to this international conference in Vancouver. It's held every two years and draws more than 9,000 business leaders and corporate managers from across Canada and around the world.

Made in Ontario Innovation

Two Ontario companies have developed products that have revolutionized large-scale applications of membrane filtration and ultraviolet disinfection of drinking water. Another Ontario company has developed technologies that protect source water from harmful pollutants. They remove oil and sediment from storm water and prevent stored contaminants from reaching natural waterways.



Right: Membrane Ultra-filtration System in use at a Water Treatment Plant.

HIGHLIGHTS
OF THE BROADER WATER AGENDA

Many of the issues my ministry is addressing to keep our drinking water safe are closely intertwined with other important government priorities. I work closely with other ministries, the federal government, and stakeholders throughout Ontario to meet the challenges of climate change, protecting our Great Lakes, cleaning up our source waters, investing in drinking water infrastructure, reducing toxic chemicals in our drinking water and protecting Ontario families from exposure to unnecessary pesticides.

CLIMATE CHANGE

My government has stepped forward to protect Ontario's future water quantity and quality in light of today's climate change realities. Scientists have shown that the earth's climate is changing dramatically. Most climate change models predict a range of significant impacts that could threaten our drinking water — lower water levels, warmer water, more extreme weather events, more droughts, flooding and erosion.

As part of Go Green: Ontario's Action Plan on Climate Change, Premier McGuinty has set ambitious but realistic targets to reduce greenhouse gases below 1990 levels – six per cent by 2014, 15 per cent by 2020 and an 80 per cent reduction by 2050. Ontario's greenprint for creating solutions will help, over time, reduce the effects of climate change.

Our government is taking mitigation seriously and we've also begun to make efforts to enable Ontario to adapt to the impacts of climate change. Adaptation is a key part of a successful climate change plan.

Here's what we are doing:

- I appointed the Expert Panel on Climate Change Adaptation in December 2007 to provide me with innovative thinking and practical advice on adaptation strategies to address the impacts of climate change in our communities and our ecosystems;
- My ministry committed $220,000 to support the Ontario Centre for Climate Impacts and Adaptation Resources;
- Premier McGuinty hosted the first annual Planning for Today: The Climate Change Adaptation Summit on March 31 and April 1, 2008; it brought together leading scientists, technical experts and policy makers from across Canada;
- My ministry negotiated climate change adaptation commitments into our 2007 Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem and pressed for the inclusion of climate change adaptation in any future renewal of the Canada-U.S. Great Lakes Water Quality Agreement; and
- Under the Clean Water Act, 2006, Source Protection Committees will be required to submit Assessment Reports that analyze historical climatic trends including precipitation and low water circumstances. Water quality threats must also be identified. Through the recently posted Assessment Report regulation, the Source Protection Program is proposing to require a summary document that describes how the assessment report and its conclusions would be impacted by changes to the climate in a source protection area over the next 25 years. It is proposed that Source Protection Committees be required to submit this summary with the Assessment Report in the fiscal year 2009-10.

I have continued strengthening partnerships on a number of fronts to make sure our Great Lakes remain among the best protected in the world. It is imperative that we steward these beautiful and critically important water resources to the best of our ability.

The Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem (COA)

My ministry joined with other Ontario government ministries and the federal government to renegotiate and begin implementation of the COA. The 2007 COA – the seventh agreement since 1971, came into effect on June 25, 2007. It includes two important new areas for action that will:

- Improve our scientific understanding of the potential impacts of climate change on the Great Lakes Basin; and
- Safeguard the Great Lakes Basin as a source of drinking water. Its source water protection provisions commit the governments of Ontario and Canada to collaborate and to work with organizations and citizens around the lakes to protect them as a source of drinking water.

Safeguarding and Sustaining Ontario's Water Act

My government already had been conserving and protecting our precious waters by banning diversions of water out of the Great Lakes-St. Lawrence River, Nelson and Hudson Bay basins. This is now enshrined in the Ontario Water Resources Act. And now there is additional protection. Once the Safeguarding and Sustaining Ontario's Water Act is proclaimed in force, new or increased diversions of water from one Great Lake watershed to another will be prohibited, aside from strictly regulated exceptions.

Charges for Taking Water

My government is protecting the quantity of our water, not just its quality. Highly consumptive commercial and industrial users, such as beverage or ready-mix concrete manufacturers who take water from Ontario sources to incorporate into products, will pay a regulatory charge based on how much water they use. This is an incentive to make more efficient use of that water. My government will use the money to help cover our share of the costs of managing Ontario's water resources, including the Great Lakes.

Lake Simcoe

The water quality of this beautiful fresh water lake, which provides thousands of people with drinking water, has been deteriorating. A key problem is phosphorous, a chemical that enters the lake from agricultural, storm water runoff and sewage treatment plants. Phosphorous is a food source for algae and when abundant, algae multiply into blooms that block sunlight. When these algae blooms die, they use up oxygen, depriving fish of the oxygen they breathe to stay alive.

A new day is dawning for Lake Simcoe. This Act is very positive and we look forward to working with the government to make the Protection Plan as strong as possible.

I am very serious about protecting Lake Simcoe. The partnerships and strategies that we are currently developing for protecting this important body of water will set the gold standard for creating sustainable communities that safeguard their environments:

- Strict interim limits are in place, effective April 1, 2008, on phosphorous discharges from industrial and municipal sewage treatment plants;
- The Lake Simcoe Science Advisory Committee was formed to provide advice on proposed legislation and elements of the protection plan to make sure our strategy is based on the best available science;
- The Lake Simcoe Stakeholder Advisory Committee was set up to advise on best approaches to improve the long-term future of Lake Simcoe;
- A discussion paper was released on the Environmental Registry and on June 17, 2008, I introduced legislation that would require the province to develop a protection plan that would set priorities, targets and actions to protect and restore the ecological health of the Lake Simcoe watershed. The legislation would provide for both regulatory and non-regulatory tools to be used to achieve the plan objectives; and
- Work has now begun towards development of a proposed Lake Simcoe protection plan.

Randle Reef

My government is committed to improving fish habitat, harbour health and water quality in Randle Reef. This area of Hamilton Harbour is the secondmost contaminated site of its kind in Canada. Its pollution began in the 1800s, when industry deposited coal tar residues and heavy metals into the water. My government is contributing $30 million to clean it up; the federal government and municipalities are expected to pay the remaining two-thirds of the costs.

My government is committed to fixing and upgrading our infrastructure to provide reliable, ongoing supplies of drinking water. It's a big job. Most of the pipes and other equipment that carries our water – including our drinking water – were built in the early and mid-20th century. Some go all the way back to the late 19th century. As demonstration of this commitment, my government has invested extensively in renewing municipal water and wastewater systems.

In March 2008, the Ministry of Energy and Infrastructure (MEI), formerly the Ministry of Public Infrastructure Renewal, provided $55.1 million through the Municipal Infrastructure Investment Initiative (MIII) for 29 water projects. MIII is a one-time grant program that helps municipalities provide safe, reliable local infrastructure. In August 2007, MEI launched a five-year $40 million program for small water systems. This program will help small municipalities and Local Services Boards with drinking water system operating and capital costs. In early 2008, the $8 million Ontario Small Waterworks Assistance Program was launched as the first phase of the 5 year program.

From May 2007 to July 2008, the government committed $57.8 million in affordable low-interest loans through the Ontario Strategic Infrastructure Financing Authority loan program to help 14 municipalities address their drinking water infrastructure priorities.

REDUCING TOXIC CHEMICALS IN OUR DRINKING WATER

My government's March 2008 Budget provided $41 million over four years to support proposed tough new laws and strategies to help protect Ontarians from toxic chemicals in our water, air, land and consumer products. My ministry is taking action and building partnerships to protect our drinking water on a number of fronts:

- **We are consulting with Cancer Care Ontario and the Ontario Medical Association to help us identify, target and reduce the number of cancer-causing agents released into the environment;**
- **We are working with other ministries to find new technologies that will help industries reduce their use of toxic chemicals;**
- **We have appointed an expert medical and scientific panel which will advise us about toxins we should address. One early priority for the panel's consideration is Bisphenol-A, a chemical in some plastic baby bottles; and**
- **We plan to introduce new toxic reduction legislation to reduce pollution and inform and protect Ontarians from toxic chemicals.**

I believe that more work needs to be done so First Nations reserves have the same level of drinking water protection as other communities in Ontario. My ministry is committed to working with First Nations communities, at their request, and has provided support in several areas related to drinking water. We have provided technical advice, for instance, when conducting engineering evaluations of drinking water systems in First Nations reserves.

My ministry provides presentations on Ontario's regulatory system at First Nations sponsored symposia. It encourages First Nations operators to become certified through Ontario's program, and the Walkerton Clean Water Centre has a special mandate to provide training for operators of drinking water systems in First Nations communities.

Another of my priorities is to meet with and support First Nations in understanding the Clean Water Act, 2006. Where reserves are located within the planning areas, First Nations are encouraged to participate as members of the committee.

They can also initiate a process by which the drinking water system serving their reserve is included in the planning process for the source protection area.

My government is committed to fixing and upgrading our infrastructure to provide reliable, ongoing supplies of drinking water. It's a big job. Most of the pipes and other equipment that carries our water – including our drinking water – were built in the early and mid-20th century. Some go all the way back to the late 19th century. As demonstration of this commitment, my government has invested extensively in renewing municipal water and wastewater systems.

In March 2008, the Ministry of Energy and Infrastructure (MEI), formerly the Ministry of Public Infrastructure Renewal, provided $55.1 million through the Municipal Infrastructure Investment Initiative (MIII) for 29 water projects. MIII is a one-time grant program that helps municipalities provide safe, reliable local infrastructure. In August 2007, MEI launched a five-year $40 million program for small water systems. This program will help small municipalities and Local Services Boards with drinking water system operating and capital costs. In early 2008, the $8 million Ontario Small Waterworks Assistance Program was launched as the first phase of the 5 year program.

From May 2007 to July 2008, the government committed $57.8 million in affordable low-interest loans through the Ontario Strategic Infrastructure Financing Authority loan program to help 14 municipalities address their drinking water infrastructure priorities.

My government's March 2008 Budget provided $41 million over four years to support proposed tough new laws and strategies to help protect Ontarians from toxic chemicals in our water, air, land and consumer products. My ministry is taking action and building partnerships to protect our drinking water on a number of fronts:

- **We are consulting with Cancer Care Ontario and the Ontario Medical Association to help us identify, target and reduce the number of cancer-causing agents released into the environment;**
- **We are working with other ministries to find new technologies that will help industries reduce their use of toxic chemicals;**
- **We have appointed an expert medical and scientific panel which will advise us about toxins we should address. One early priority for the panel's consideration is Bisphenol-A, a chemical in some plastic baby bottles; and**
- **We plan to introduce new toxic reduction legislation to reduce pollution and inform and protect Ontarians from toxic chemicals.**

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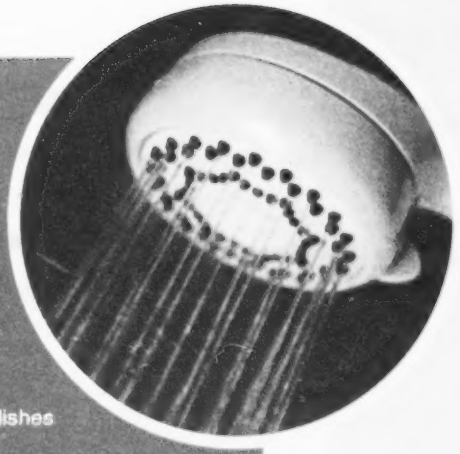
My ministry has acted to help protect Ontario's families from the cosmetic use of pesticides. Such pesticides are a potential threat to our rivers and lakes. And there are environmentally friendly alternatives for lawn and garden care. Many municipalities have already shown leadership in protecting our water resources and our health by banning or restricting cosmetic use pesticides. To extend that protection to all families across Ontario, wherever they live, the Cosmetic Pesticides Ban Act, 2008 bans the sale and use of pesticides for cosmetic or non-essential purposes. My ministry has begun consulting on the specifics of the ban.

I know that Ontario's broader water agenda is ambitious. I am proud of our achievements to date. On behalf of the people of Ontario, I will continue to work with my ministry and partners to safeguard Ontario's drinking water.

Make Smart Choices And Save



You can make a big difference in protecting the environment. To conserve water and keep water clean:

Save Water

- Install low-volume flush toilets.
- Completely fill your dishwasher with dishes before running it.
- Use water-efficient shower and faucet heads.
- Put a layer of mulch, bark or peat moss around your trees and plants. This will slow down water evaporation from your soil, and you won't need to water as much.

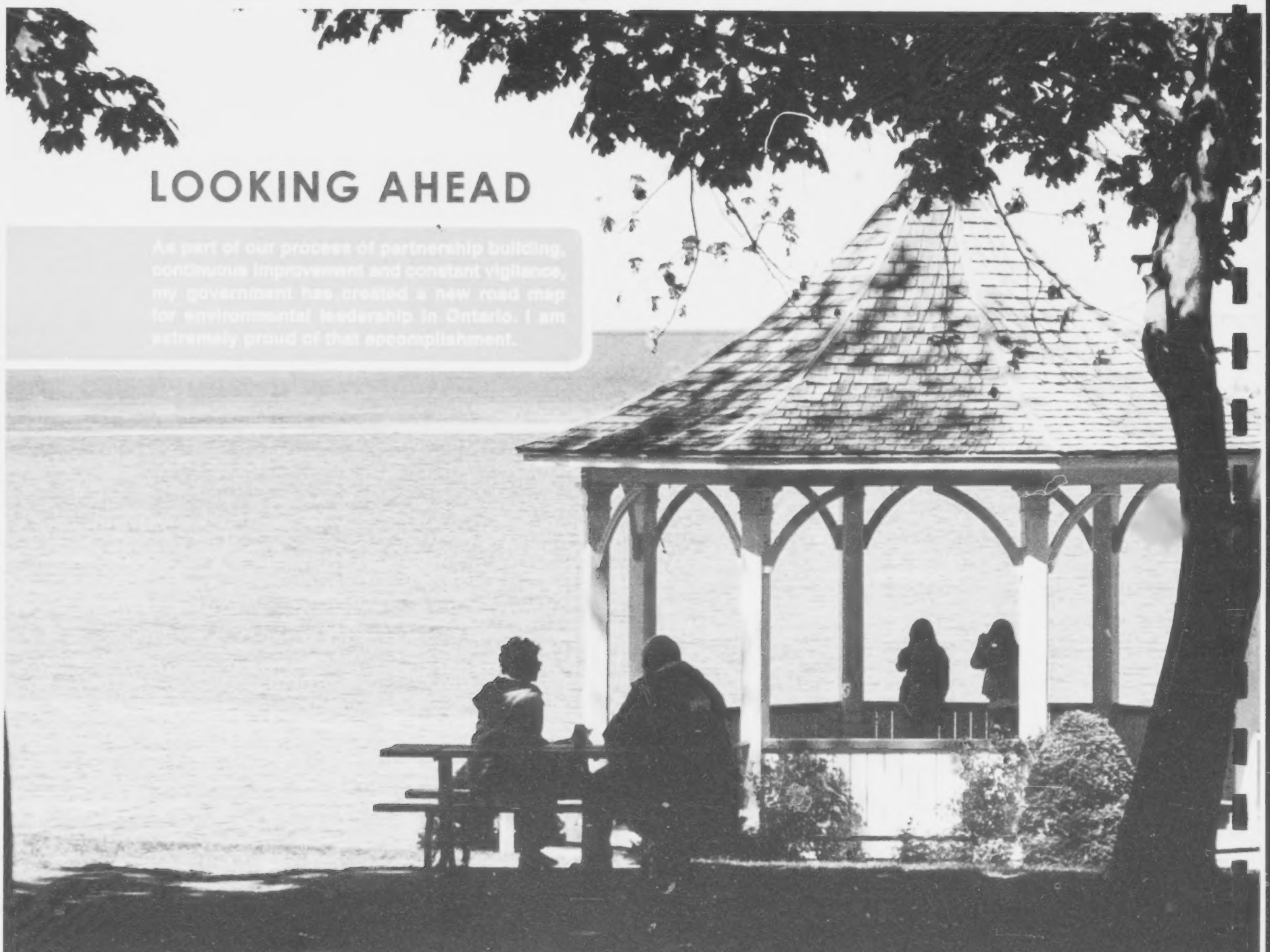
Keep Water Clean

- Take expired medications to a hazardous waste collection site. Don't flush them down the toilet: they could go to our lakes and rivers – our drinking water sources.
- Never discard paints or oils into street storm drains: they feed directly into our drinking water sources.

Go to **www.ene.gov.on.ca/en/myenvironment/index.php** for more information about saving water and making smart choices. Kids can visit *E-zone* at **www.ene.gov.on.ca/en/ezone**.

LOOKING AHEAD

As part of our process of partnership building, continuous improvement and constant vigilance, my government has created a new road map for environmental leadership in Ontario. I am extremely proud of that accomplishment.



I recognize much work needs to be done. Over the next year – and over the years to come – we will build on our progress.

Now that we have moved into the important implementation phase of the Clean Water Act, 2006, I will be meeting with our experts and working closely with our stakeholders to make sure that Ontario's communities are fully empowered to protect their municipal drinking water sources.

Protecting and sustaining Lake Simcoe is also a priority for our government. If Bill 99, our proposed Lake Simcoe Protection Act, is passed, it will set the framework for developing a long-term comprehensive strategy that will work for everyone. And just as I personally attended workshops and public information forums as part of our Lake Simcoe Discussion paper consultations, I intend to work closely with committees to make sure we have the best possible plan to protect the waters, ecosystem and beauty of this watershed.

Climate change adaptation is another challenge that will occupy our society and affect our economy for years to come. I'm committed to building adaptation into the major agreements and legislation protecting our waters. That is why, in consultation with climate change stakeholders, we will develop water conservation and efficiency goals, objectives and a program in accordance with our commitment under the Great Lakes-St. Lawrence River Basin Sustainable Resources Agreement.

My ministry is also reviewing Ontario's provincial storm water policies with regard to climate change and continuing with existing policies such as the Greenbelt Act, which protects an area of environmentally sensitive agricultural land and the waterways within.

Beyond that, we'll continue investing in public transit, implementing policies for home energy audits and retrofits, working with municipalities to reduce their greenhouse gas emissions and supporting research and innovation into new technologies.

We will make sure Ontarians can continue to count on high quality water from their taps. We look forward to continuing our work with owners and operating authorities of municipal residential drinking water systems. We'll be clarifying the new rules, so they're ready to meet the new requirements to get a licence to operate their systems and incorporate quality management into their operations when they're phased in between 2009 and 2012.

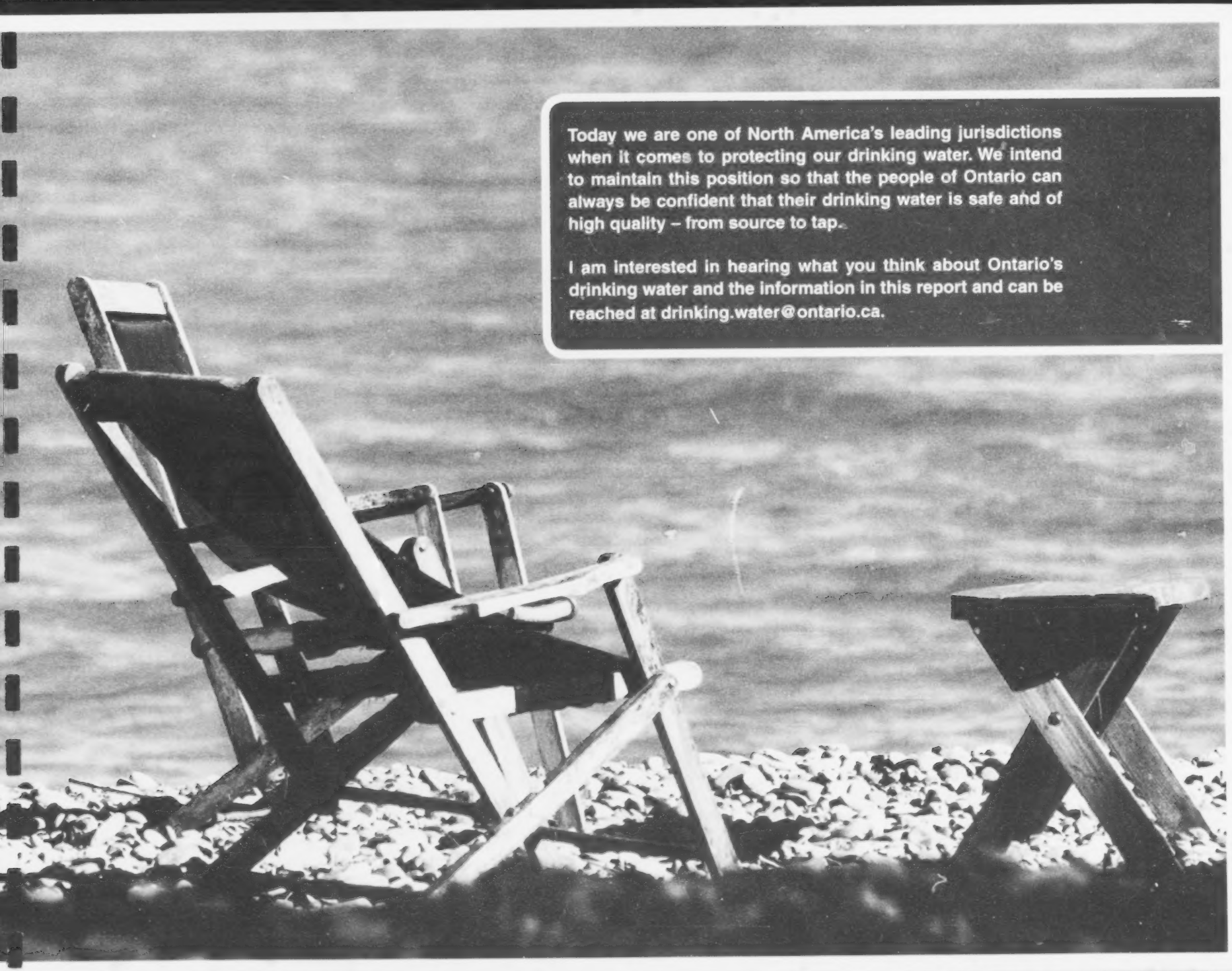
In addition, in April 2008, we posted amendments to regulations, needed to transfer oversight of small drinking water systems to the Ministry of Health and Long-Term Care, onto the Environmental Registry. The Ministry of Health and Long-Term Care also posted proposals for draft regulations related to small drinking water systems under the Health Protection and Promotion Act. Once the Health System Improvements Act, 2007 and these regulations are in force and the program transfer is in effect, public health inspectors will start their risk-based assessment of Ontario's small drinking water systems.

The Honourable John Gerretsen, Minister of the Environment with ministry employees.

I consider partnerships key to helping my ministry safeguard Ontario's drinking water. The Ministry of Energy and Infrastructure (MEI) is leading a long term strategy to make sure municipalities have the financial and organizational capacities needed to provide high quality and affordable drinking water and wastewater services. In 2008, MEI expects to launch the second phase of the $40 million funding program for small drinking water systems announced in August 2007.

Just as importantly, we have taken action, on behalf of the next generation of Ontarians, to reduce our exposure to chemicals. Ontarians share my feeling that using pesticides for cosmetic reasons is an unnecessary risk to our families and the environment. Our legislation that will help to ban the sale and use of pesticides for cosmetic purposes will make Ontario's pesticide rules among the toughest in North America.

This document itself is a tangible demonstration of my belief that public reporting is an important component of Ontario's drinking water safety net. It demonstrates that the Ontario government takes drinking water protection and its partnership with the people of Ontario, very seriously.



Today we are one of North America's leading jurisdictions when it comes to protecting our drinking water. We intend to maintain this position so that the people of Ontario can always be confident that their drinking water is safe and of high quality – from source to tap.

I am interested in hearing what you think about Ontario's drinking water and the information in this report and can be reached at drinking.water@ontario.ca.

GLOSSARY

Adverse Water Quality Incident (AWQI): an event in which a municipal or private drinking water system receives an adverse test result. This can trigger a process of notification and corrective measures.

Assessment Report: reports prepared by municipalities and conservation authorities with locally based committees under the Clean Water Act, 2006. These reports allow for the identification and assessment of threats to local drinking water system sources.

Coal Tar: a viscous liquid mixture of hydrocarbon compounds obtained as a by-product in the production of coke (a solid coal product with a high pure carbon content used as fuel in iron ore smelting) by destructive distillation of coal in coking ovens. While some medicinal ointments contain small amounts of coal tar for the treatment of skin problems, some of its components are known to be carcinogenic.

Conservation Authorities: local watershed management agencies that deliver services and programs that protect and manage water and other natural resources in partnership with government, landowners and other organizations. (**www.conservation-ontario.on.ca**)

Contaminant: any solid, liquid, gas, odour, heat, sound, vibration, radiation or combination of any of these resulting directly or indirectly from human activities that cause or may cause an adverse effect.

Corrective Action: steps that must be taken following an adverse water quality incident as specified by O.Reg. 170/03, Schedules 17 & 18, or O. Reg. 252/05, Schedule 5 and/or as directed by the local medical officer of health or drinking water inspector that are necessary to protect human health.

Drinking Water Works Permit (DWWP): permit to establish or alter a municipal residential drinking water system (the DWWP and licence will replace the certificates of approval).

Environmental Bill of Rights, 1993: a statute of Ontario that provides a number of legal rights and formal procedures for the public to participate in environmental decision-making.

Environmental Commissioner of Ontario: an Officer of the Legislative Assembly of Ontario with responsibility for monitoring government compliance with the Environmental Bill of Rights, 1993.

Financial Plan: in order to receive a Municipal Drinking Water Licence, a municipal residential drinking water system will need to have a financial plan as required under the Financial Plans Regulation (O. Reg. 453/07).

Groundwater: the supply of fresh water found beneath the earth's surface, usually in aquifers that supply wells and springs.

GLOSSARY

Heavy Metals: a general term used to describe more than a dozen metallic elements. Some heavy metals, such as zinc, copper and iron, although harmful at high concentrations are essential parts of our diets at trace levels. Others, like lead and mercury, have no known health benefits and can have harmful effects on human health and the environment at very low concentrations. The major sources of heavy metal pollution of the environment include smelting of metal ores and electroplating industry.

Membrane Filtration: process where semi-permeable membranes let water through while catching even sub-micron size suspended solids.

Municipal Residential Drinking Water Systems: Municipally-owned systems that serve more than five private residences, as well as systems under contract with a municipality to supply drinking water to more than five private residences.

Non-Municipal Year-Round Residential Systems: Non-municipal drinking water systems that serve a major residential development (more than five private residences) or a trailer park or campground that has more than five service connections.

Ontario Drinking Water Quality Standards: regulated standards (O.Reg. 169/03, Ontario Drinking Water Quality Standards made under the Safe Drinking Water Act, 2002) for microbiological, chemical and radiological parameters that, when present above certain concentrations in drinking water, have known or suspected adverse health effects and require corrective action.

Operational Plan: a document based on the requirements of the Drinking Water Quality Management Standard. The plan will document the owner and operating authority's quality management system.

Organism: an individual form of life that includes bacteria, protozoa, fungi, viruses and algae.

Permit to Take Water: any person that takes more than 50,000 litres of water per day from any source requires a permit issued by the Ministry of the Environment Director under the Ontario Water Resources Act, unless they meet the criteria for certain exempted water takings.

Protozoa: a very diverse group comprising some 50,000 species that consist of one cell. Most of them are able to move on their own. Some are a health concern in drinking water.

Provincial Officer Order: an order issued by a Ministry of the Environment Provincial Officer to any person for contraventions of an Act administered by the Ministry of the Environment. Provincial officers may also issue preventative orders under the Safe Drinking Water Act, 2002 where the provincial officer considers it necessary for the purposes of the Act.

GLOSSARY

Raw Water Supply: means water outside a drinking water system that is a source of water for the system (see source water).

Source Water: untreated water in streams, rivers, lakes or underground aquifers which is used for the supply of raw water for drinking water systems (see raw water supply).

Source Water Protection: action taken to prevent the pollution of drinking water sources, including groundwater, lakes, rivers and streams. Source water protection involves developing and implementing a plan to manage land uses and potential contaminants.

Surface Water: waters (except groundwater) that are on the land surface, such as lakes, ponds, rivers, streams, creeks and marshes.

Systems Serving Designated Facilities: drinking water system that serves designated facilities such as schools (elementary and public), universities, colleges, children and youth care facilities (including day nurseries), health care facilities, children's camps and delivery agent care facilities (including certain hostels).

Ultraviolet Disinfection: commonly used, non-chemical method of disinfection by applying ultraviolet light (UV) to water. UV rays are able to destroy bacteria, parasite cysts and most viruses in water that is free of large particles, turbidity and colour.

Water Diversion: redirecting part of a stream flow to a location where the water will be used (e.g. to a site where it is convenient to build a water treatment plant).

Water Quality: a term used to describe the chemical, physical and biological characteristics of water, usually in respect to its suitability for a particular purpose, such as drinking.

Watershed: a region or area bounded peripherally by a divide and draining ultimately to a particular watercourse or body of water.

NOTES

NOTES

For More Information:

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Protecting our environment.

Ontario